



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/642,645

08/19/2003

Thomas Rathschlag

MERCK-2733

3760

23599

7590

08/22/2007

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.

2200 CLARENDON BLVD.

SUITE 1400

ARLINGTON, VA 22201

EXAMINER

SPEER, TIMOTHY M

ART UNIT

PAPER NUMBER

1775

MAIL DATE

DELIVERY MODE

08/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/642,645

Applicant(s)

RATHSCHLAG, THOMAS

Examiner

Timothy M. Speer

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-22 is/are pending in the application.
- 4a) Of the above claim(s) 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 4-14 and 19-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/11/07 has been entered.

Election/Restrictions

2. Regarding the restriction requirement, applicant asserts that claims 19 and 20 should be grouped with elected Group I, since claims 19 and 20 share a combination/subcombination relationship with the elected Group I. Although the restriction requirement has been made final (see the Office Action dated 06/29/05) and applicant has not previously presented this argument, the Examiner will modify the restriction as urged by applicant. Accordingly, claims 19 and 20 will be treated with the elected Group I claims. In all other respects, the restriction requirement is maintained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1775

4. Claims 1, 2, 4-14, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (USPN 4,756,951).

5. Wang discloses a print product comprising a substrate, a layer of printing ink, a primer layer including platelet-shaped particles and a top layer of an overprint varnish (PVC plastisol) (Figure 3 and accompanying text; and col. 4, lines 12-15, 43, & 43-59).

Wang teaches that the particles may have lengths or widths in the range of 5-50 microns (col. 6, lines 21-25). Accordingly, Wang clearly suggests lengths or widths within the presently claimed range of 1 to 1000 microns, since Wang's disclosure encompasses the presently claimed range. Wang further teaches that the particles are aligned (see figure 2 and col. 3, lines 50-56, for instance)

6. Regarding the presently claimed thickness of 0.1 to 2 microns, in the "Description of the Preferred Embodiments" section of the patent, Wang discloses that the particles "typically" have thicknesses of 0.06-0.09 microns (col. 6, lines 25-26). This passage, however, is not limiting on the disclosure, but merely illustrative. Optimizing particle thickness in order to achieve desired optical affects would have been well within the purview of the ordinary worker in the art. It is well settled that "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). MPEP 2144.05. Thus, in the present case, given Wang's disclosure regarding thickness, it is not considered inventive to discover optimum or workable ranges with respect to particle thickness. Such endeavor would clearly involve no more than routine experimentation by one having ordinary skill in the art.

Art Unit: 1775

7. Regarding claims 2, 4, 6, 7, 9 and 13, Wang teaches that the disclosed platelet shaped particles may be chosen from a group including mica (col. 5, line 11). Therefore, it would have been obvious to one having ordinary skill in the art to employ mica as the particles in the article of Wang, since Wang suggests mica particles. Since such particles are recited in instant claims 4, 7, 9 and 13, they would necessarily exhibit the properties recited in claim 2. With respect to claim 6, it is the Examiner's position that since mica is a silicate, the mica particles suggested by Wang are within the scope of the phrase "based on a silicate," as employed in claim 6. Moreover, since the particles disclosed in Wang are the same as this of the present invention, it is the Examiner's position that such particles are properly termed "effect pigments" as recited in instant claim 5.

8. With respect to claims 8 and 10, Wang teaches that the article may include layers in addition to those illustrated, for example, in figure 3, and that such layers may additionally include platelet shaped particles (col. 4, lines 50-59). Therefore, it would have been obvious to one having ordinary skill in the art to include platelet shaped materials in one or more of the layers disclosed by Wang. The Examiner notes that the present claims do not require the "varnish" layer to be an outermost layer, since the present claims employ open transitional language, i.e., "comprising."

9. With respect to claim 11, Wang fails to teach the inclusion of at least one crosslinking agent. Wang, however, teaches that the various layers may contain "various additives known in the art" (see col. 4, lines 3-11, for instance). Crosslinking agents, and the properties imparted thereby, e.g., improved durability, are extremely old and well known in the art. Accordingly, it would have been obvious to one having ordinary skill

Art Unit: 1775

in the art to employ a crosslinking agent in the articles of Wang, since such materials are known in the art and suggested by Wang.

10. Regarding claims 19 and 20, these claims merely recite intended uses of the articles disclosed by Wang. Since Wang suggests that the materials disclosed therein may be used for surface coverings, generally, such as for paper, wood, metals, etc. (see col. 1, lines 10-19, for example), it would have been obvious to one having ordinary skill in the art to employ such materials in convention applications such as packaging and boxes in order to impart decorative affects to such objects, as suggested by Wang.

11. With respect to claim 22, independent claim 22 differs from independent claim 1 by recitation of phrase "wherein the alignment of the particles is effective to prevent sinking of the primer layer into the layer of printing ink." As discussed above, Wang discloses each and every claimed structural limitation of independent claim 1 and, accordingly, independent claim 22. Therefore, since the structure and materials of the articles disclosed by Wang are the same as those presently claimed, it is the Examiner's position that the particles of Wang will exhibit the function recited in claim 22.

12. Finally, with respect to the transitional phrase "consisting essentially of," for the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." MPEP 2111.03. Since the present claims or specification contain no such clear indication regarding what the basis and novel characteristics of the invention actually are, this phrase is being construed as equivalent to "comprising."

Art Unit: 1775

13. In light of the above, it is the Examiner's position that the present claims are obvious in view of the applied prior art.

Response to Arguments

14. Applicant's arguments filed 06/11/07 have been fully considered but they are not persuasive.

15. Applicant first argues that the term "aligned" would not include arrangements such as those in Wang, where the particles are oriented in two directions. Applicant then makes much ado about the meaning of the term aligned and asserts that the Examiner has improperly merely alleged that the "particles of Wang are, in fact aligned; some at one angle and others at another" (response at page 8). Such argument is, however, much ado about nothing, since the term "oriented" as employed in Wang is synonymous with the term "aligned" used in the present claims. Indeed, the New Riverside University Dictionary defines the term "orient" as "to become adjusted or **aligned**" (emphasis added, copy enclosed). Clearly, then, the particles of Wang are aligned, as presently claimed.

16. It appears that applicant is really attempting to argue a more narrow definition of the term aligned than is warranted; one that requires ALL of the particles to be in the SAME alignment. Such a definition, however, is more narrow than that supported by the record. Moreover, the present claims are not so limited. Accordingly, this argument is not persuasive.

17. Next, applicant argues that Wang fails to teach the presently claimed particle thickness. This argument has been addressed above in the body of the 103 rejection and is incorporated herein by reference.

Art Unit: 1775

18. Finally, applicant argues patentability of the present claims based on the limitation recited in instant claim 22 regarding sinking of the primer layer into the printing ink layer. As an initial matter, the Examiner notes that this limitation is not recited in independent claim 1. To the extent that applicant's arguments are directed to claim 22, this limitation has been addressed above in the body of the 103 rejection and is incorporated herein.

19. In light of the above, applicant's arguments have been fully considered but are not found to be persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Speer whose telephone number is 571-272-8385. The examiner can normally be reached on M-Th, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Application/Control Number: 10/642,645

Page 8

Art Unit: 1775

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Timothy M. Speer